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United States Patent [19][11] **Patent Number:** **5,633,329****Hähnle et al.**[45] **Date of Patent:** **May 27, 1997****[54] PREPARATION OF HIGH MOLECULAR WEIGHT POLYMERS****FOREIGN PATENT DOCUMENTS**

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[52] **U.S. Cl.** **526/64; 526/317.1; 526/329.7**

[58] **Field of Search** 526/64, 317.1,
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[57] ABSTRACT

Process for the preparing high molecular weight polymers by polymerization of water-soluble, monoethylenically unsaturated monomers and, if desired, crosslinkers, and, if desired, water-insoluble monoethylenically unsaturated monomers, in aqueous solution in the presence of polymerization initiators in a tubular reaction which at the end has a conical taper, the ratio of the diameter of the reactor (D1) to the diameter at the end of the conical taper of the reactor (D2) being from 2:1 to 25:1 and the angle between D1 at the beginning of the conical taper and the inner cone wall being >45° and <90°, and discharge of the gelatinous reaction mixture from the reactor by injection of an inert gas.

7 Claims, 1 Drawing Sheet